

Amendments to the Claims:

Re-write the claims as set forth below. This listing of claims will replace all prior versions and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Currently amended) The television system of claim ~~5~~14, wherein the television system is one of set top box, a desk top box, and a personal digital assistant.
8. (Currently amended) A method for providing a zoom video tracking image, comprising ~~steps of:~~
 - beginning a zoom mode;
 - receiving input data identifying a first zoom portion of a full frame of an image;
 - displaying the identified first zoom portion in a first zoom frame ~~within a full frame of the image;~~
 - detecting motion of an object within the first zoom frame;
 - selecting a second zoom portion of a full frame of the image such that the object appears at least at a predetermined distance from an edge of the second zoom portion of the image; and
 - displaying the second zoom portion in ~~[[the]]~~ a second zoom frame.
9. (Currently amended) The method of claim 8, further comprising ~~a step of,~~ when at least one edge of the second zoom portion of the image extends beyond the ~~[[image]]~~full frame, terminating the zoom mode.

10. (Currently amended) The method of claim 8, further comprising ~~steps of~~:
measuring a difference between the first zoom portion of the image and the second zoom portion of the image; and
when the difference between the first zoom portion of the image and the second zoom portion of the image exceeds a predetermined threshold, terminating the zoom mode.
11. (Currently amended) The method of claim 8, wherein the first zoom portion of the image and the second zoom portion of the image are MPEG2 images; and wherein the detecting motion of [an]~~the~~ object within the first zoom frame ~~portion of the image~~ includes ~~a step of~~ examining MPEG2 motion vectors.
12. (Currently amended) The method of claim 11, wherein, during panning of the image, objects within the full frame of the image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom frame ~~portion of the image~~, and wherein ~~[[in]]~~ the ~~step of~~ examining MPEG2 motion vectors includes determining ~~[[,]]~~ a compensated MPEG2 motion vector for objects in the first zoom frame ~~portion of the image~~ is ~~determined~~ by eliminating an MPEG2 motion vector of the full frame ~~entire portion~~ of the image ~~taken as a whole~~ from the MPEG2 motion vector of the object in the first zoom frame ~~portion of the image~~.
13. (Currently amended) The method of claim 11, wherein, during panning of the image, objects within the full frame of the image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom frame ~~portion of the image~~, and wherein the ~~step of~~ examining MPEG2 motion vectors includes ~~comprises~~ determining that an object has a larger motion vector in one direction when observed in a full frame of the image, and has a smaller motion vector when observed in a zoom frame in order to identify panning of the image.
14. (Currently amended) A television system, comprising:
a tuner operative to receive a video image;
a video signal processor coupled to the tuner and operative to select a first zoom portion of a full frame of the video image to provide a selected first zoom portion of the video image;
and
the video signal processor also operative, while all edges of the selected first zoom portion of the video image are within the full frame of the video image, to zoom to the selected

first zoom portion of the video image and display in a first zoom frame, to detect movement of an object within the first zoom frame~~selected portion of the video image~~, and to select a second zoom portion of the video image to redefine the selected first zoom portion of the video image and display in ~~[[the]]~~ a second zoom frame.

15. (Currently amended) The television system of claim 14, wherein the video signal processor is further operative to determine a difference between the first zoom portion of the video image and the second zoom portion of the video image, and to cancel zoom in response to the difference exceeding a predetermined threshold.

16. (Currently amended) The television system of claim 14, wherein the first zoom portion of the video image and the second zoom portion of the video image are MPEG2 images; and wherein the video signal processor is further operative to detect motion of an object within the first zoom portion of the video image by examining MPEG2 motion vectors.

17. (Currently amended) The television system of claim 16, wherein, during panning of the video image, objects within the full frame of the video image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom portion of the video image, and wherein the video signal processor is further operative to determine a compensated MPEG2 motion vector for objects in the first zoom portion ~~[[potion]]~~ of the video image by eliminating an MPEG2 motion vector of the ~~entire portion-full frame~~ of the video image ~~taken as a whole~~ from the MPEG2 motion vector of the object in the first zoom portion of the video image.

18. (Currently amended) The television system of claim 16, wherein, during panning of the video image, objects within the full frame of the video image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom portion of the video image, and wherein the video signal processor is further operative to determine that an object has a larger motion vector in one direction when observed in a full frame of the video image, and has a smaller motion vector when observed in a zoom frame in order to identify panning of the video image.

19. (Currently amended) The method of claim [[1]]8, wherein selecting the second zoom portion of the image includes selecting ~~is selected~~ such that the ~~at least one~~ object remains within the second zoom portion of the image.

20. (Currently amended) The method of claim [[1]]8, wherein the object is a single object within the first zoom portion of the image.

21. (Currently amended) A method for providing a zoom video tracking image, comprising:
receiving at least one full frame from a plurality of frames;
beginning a zoom mode;
receiving input data identifying ~~at least one~~ zoom portion ~~[[image]]~~ that includes only a portion of the at least one received full frame in response to beginning ~~[[a]]~~ the zoom mode;
displaying the zoom portion in a zoom frame ~~[[image]]~~ in response to the receiving input data identifying the ~~at least one~~ zoom portion ~~[[image]]~~;
detecting motion of at least one object within the zoom portion ~~[[image]]~~ in response to the receiving input data identifying the ~~at least one~~ zoom portion ~~[[image]]~~; and
adjusting ~~[[the]]~~ a relationship of the zoom portion ~~[[image]]~~ relative to the at least one full frame, such that the at least one object remains within the zoom portion ~~[[image]]~~ in response to the detecting motion of the at least one object.

22. (Currently amended) The method of claim 21, wherein the displaying the zoom portion includes displaying zoom image ~~is identified~~, such that the zoom frame ~~[[image]]~~ displays the at least one object while in motion.

23. (Currently amended) The method of claim 21, including adjusting at least one of: a horizontal position and a vertical position of the zoom portion ~~[[image]]~~ relative to the at least one full frame.

24. (Currently amended) The method of claim 21, wherein detecting motion includes detecting motion ~~is detected~~ for a single object within the zoom portion ~~[[image]]~~.

25. (Currently amended) The method of claim 21, including adjusting a ratio of a zoom area included within the zoom portion ~~[[image]]~~ and a full frame area included within the at least one full frame.

26. (New) A method for providing a zoom video tracking image, comprising:
beginning a zoom mode;
receiving input data identifying a first zoom portion of a full frame of an MPEG2 image;
displaying the identified first zoom portion in a first zoom frame;
detecting motion of an object within the first zoom frame based on examining MPEG2 motion vectors and wherein, during panning of the MPEG2 image, objects within the full frame of the MPEG2 image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom frame, and wherein the examining MPEG2 motion vectors includes determining a compensated MPEG2 motion vector for objects within the first zoom frame by eliminating an MPEG2 motion vector of the full frame of the MPEG2 image from the MPEG2 motion vector of the object within the first zoom frame;
selecting a second zoom portion of a full frame of the MPEG2 image such that the object appears at least at a predetermined distance from an edge of the second zoom portion of the MPEG2 image; and
displaying the second zoom portion in a second zoom frame.

27. (New) A method for providing a zoom video tracking image, comprising:
beginning a zoom mode;
receiving input data identifying a first zoom portion of a full frame of an MPEG2 image;
displaying the identified first zoom portion in a first zoom frame;
detecting motion of an object within the first zoom frame based on examining MPEG2 motion vectors and wherein, during panning of the MPEG2 image, objects within the full frame of the MPEG2 image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom frame, and wherein the examining MPEG2 motion vectors includes determining that the object has a larger motion vector in one direction when observed in the full frame of the MPEG2 image, and has a smaller motion vector when observed in the first zoom frame in order to identify the panning of the MPEG2 image;
selecting a second zoom portion of a full frame of the MPEG2 image such that the object appears at least at a predetermined distance from an edge of the second zoom portion of the MPEG2 image; and
displaying the second zoom portion in a second zoom frame.

28. (New) A television system, comprising:

a tuner operative to receive an MPEG2 video image;

a video signal processor coupled to the tuner and operative to receive input data identifying a first zoom portion of a full frame of the MPEG2 video image and to display the identified first zoom portion in a first zoom frame;

the video signal processor also operative to detect motion of an object within the first zoom frame by examining MPEG2 motion vectors;

the video signal processor further operative, wherein during panning of the MPEG2 video image, objects within the full frame of the MPEG2 video image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom frame, to determine a compensated MPEG2 motion vector for objects within the first zoom frame by eliminating an MPEG2 motion vector of the full frame of the MPEG2 video image from the MPEG2 motion vector of the object within the first zoom frame; and

the video signal processor further operative, while all edges of the identified first zoom portion are within the full frame of the MPEG2 video image, to zoom on the identified first zoom portion and display the identified zoomed first portion in the first zoom frame, to detect movement of the object within the first zoom frame, and to select a second zoom portion to redefine the identified first zoom portion and display the selected second zoom portion in a second zoom frame.

29. (New) A television system, comprising:

a tuner operative to receive an MPEG2 video image;

a video signal processor coupled to the tuner and operative to receive input data identifying a first zoom portion of a full frame of the MPEG2 video image and to display the identified first zoom portion in a first zoom frame;

the video signal processor also operative to detect motion of an object within the first zoom frame by examining MPEG2 motion vectors;

the video signal processor further operative, wherein during panning of the MPEG2 video image, objects within the full frame of the MPEG2 video image have larger MPEG2 motion vectors than an MPEG2 motion vector of the object within the first zoom frame, to determine that the object has a larger motion vector in one direction when observed within the full frame of

the MPEG2 video image, and has a smaller motion vector when observed within the first zoom frame in order to identify the panning of the MPEG2 video image; and

the video signal processor further operative, while all edges of the identified first zoom portion are within the full frame of the MPEG2 video image, to zoom on the identified first zoom portion and display the identified zoomed first portion in the first zoom frame, to detect movement of the object within the first zoom frame, and to select a second zoom portion to redefine the first zoom portion and display the selected second zoom portion in a second zoom frame.